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20-006

Revised April 2020

Emergency Disposal of Animal Carcasses Associated with a Non-Disease-Related Mass Mortality Event

In the event of numerous animal deaths in a short period of time it may become necessary to dispose of the carcasses. This guidance is designed to help Nebraska livestock producers plan in advance to deal with catastrophic animal mortality associated with a non-disease-related event. After consultation with appropriate animal health authorities, this guidance, as it relates to burial and composting, is applicable for animals that have been euthanized by sodium nitrite. However, this does not apply for rendering facilities.

Following a Mass Mortality Event (MME), on-site disposal may be preferred unless site conditions are not suitable. If a MME occurs in Nebraska, the Nebraska Department of Environment and Energy (NDEE) will consult with the Nebraska Department of Agriculture (NDA) about the suitability for any affected site. However, a rapid response during an emergency will be more effective if disposal sites are pre-selected. Livestock producers are encouraged to develop their own emergency disposal plans in advance of any catastrophic event.

The NDEE can assist producers with on-site disposal options to determine locations of wells, depth to water, and the sizing of trenches for planning purposes.

Disposal Methods:

During a MME, the operation should try to follow its mortality management plan. If the operation does not have a mortality management plan, or if it is not feasible for a large quantity of livestock, the following are possible options to consider. If there are questions regarding any of the following, please contact the NDEE Environmental Assistance Coordinator at (402) 471-8308.

Burial:

On-Site Burial – When done in compliance with state and local regulations, burial is an accepted method of disposing of animals and is often the disposal method of choice for catastrophic livestock losses. Burying the animals on-site within 36 hours after knowledge of death and at least **four feet** below ground surface is recommended.

Above-Ground Burial (AGB)* – This method has only been field tested. Currently the State recommends that AGB be implemented on a limited scale, and State Investigators should be consulted prior to field implementation in a disaster. Burying the animals on-site within 36 hours after knowledge of death and at least **two feet** below ground surface

in a single layer is recommended. Please refer to the Nebraska Department of Agriculture memo (April 30, 2020) on Above Ground Burial of Livestock Carcasses.

***Note:** AGB requires approval from the Nebraska Department of Agriculture prior to implementation. Interested parties should contact the NDA Emergency Response Coordinator.

A state permit to bury on-site or on an adjacent contiguous property is not required; however, there are obligations under Nebraska statutes and regulations to protect groundwater resources. With this in mind, it is recommended that a disposal site be selected with knowledge of the environmental conditions, including: land topography, depth to groundwater, surface water drainage, as well as soil type and depth. Also, separation distances to neighbors, surface water bodies, wells, roads and rights of way should be considered.

Separation Distances for Burial Sites (NDEE Guidance: Disposal of Animal Carcasses; December, 2016)

DHHS Title 178, Chapter 12, Water Well Construction, Pump Installation and Water Well Decommissioning Standards

DHHS Title 179, Chapter 22, Operation and Maintenance of Community and Non-Transient Non-Community Public Water Systems

- At least 5 feet separation from the bottom of the burial pit to groundwater
- 4 feet of compacted cover soil for standard burial;
- 1000 feet from public water supply wells, 500 feet from domestic wells and outside of any well-head protection areas;
- 300 feet from domestic water intakes, streams, creeks, ponds, springs and lakes and at least 100 feet from the edge of a major cut or embankment;
- 500 feet from residences, livestock facilities and adjacent pastures owned or leased by another person;
- 300 feet from a road;
- 500 feet from a secondary highway;
- 1000 feet from a primary highway; and
- Avoid above and below ground utilities when selecting an appropriate site.

It is useful to consider the depth, width and length of any burial trenches before site planning or excavation begins. See Attachment 1 – Trench Size Worksheet, and Attachment 2 – Disposal Checklist, for guidance on trench planning for your site.

On-Site Incineration – Disposal by burning requires the use of an incinerator permitted by the NDEE. In most circumstances, incineration is a difficult disposal method to employ quickly with large numbers of livestock carcasses. Other methods, such as open burning with an air curtain incinerator, would normally not be allowed. The cost of fuel for either of these methods may also limit them as viable options for disposal. However, during an emergency, such methods may be approved by the NDEE on a case-by-case basis. The NDEE Air Quality Division must be contacted if any incineration or burning is under consideration.

On-Site and Off-Site Composting – Composting of livestock mortalities is an approved method of disposal.

Landfilling – Landfilling of livestock mortalities is an approved method of disposal.

NOTE: Nebraska Statue §54-744 limits carcass disposal to burial, incineration, composting, rendering, or landfilling. ** Burial, incineration and composting must be performed on-site or on an adjacent property. Restrictions apply. Questions concerning these statutory requirements should be directed to the Nebraska Department of Agriculture. If alternate disposal methods are necessary due to an emergency, contact the Nebraska Department of Agriculture or the Nebraska Department of Environment and Energy for more information.

**Veterinary clinics and laboratories have other option.

RESOURCES

- NDEE Home Page <http://dee.ne.gov/>

Contacts

- NDEE Waste Management Section (planning assistance)
(402) 471-4210
- NDEE Toll Free Number: (877) 253-2603
- Email questions to: ndee.moreinfo@nebraska.gov

External Links and Resources

- Nebraska Department of Agriculture: <http://nda.nebraska.gov>
- Nebraska Department of Agriculture – Monograph on Catastrophic Mortality and Associated Material Disposal: http://www.nda.nebraska.gov/admin/security/monograph_002.doc
- Nebraska Department of Agriculture - Memo: Above Ground Burial of Livestock Carcasses; April 27, 2020
- Nebraska Department of Environment and Energy – Guidance Document: Disposal of Animal Carcasses (November, 2016): <http://deq.ne.gov/publications/pages/06-201>
- University of Nebraska - IANR Animal Science: Emergency Depopulation of Livestock Facilities - <https://animalscience.unl.edu/swine>
- USDA Animal and Plant Health Inspection Service (APHIS) <https://www.aphis.usda.gov/aphis/>
- Secure Pork Supply biosecurity website: <http://www.securepork.org/>
- USDA & Natural Resources Conservation Service (NRCS) Web Soil Survey: <https://websoilsurvey.nrcs.usda.gov/app/>
- Nebraska One Call – Utility location: <https://www.ne1call.com/> or call 811 or (800) 331-5666